

LIQUID CRYSTAL DISPLAY DEVICE AND ITS PRODUCTION

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Abstract

PURPOSE: To enable the formation of low-resistance scanning signal electrodes and external connecting terminals having high corrosion resistance to be realized and to prevent the disconnection of upper wirings so as to improve yield, by forming a second conductive film of a material which is higher in the coeff. of volumetric expansion at the time of growth of a self-anodized film than a first conductive film.

CONSTITUTION: At least the signal electrode formed in the lower layer between the scanning signal electrodes 11 and video signal electrodes 14 consist of at least the two layers, that is, the first conductive film made of an alloy film having Al as main component or Al and the second conductive film formed in the lower layer of the first conductive film. In addition, the second conductive film is constituted of the material which is higher in the coeff. of volumetric expansion at the time of growth of the self-anodized film than the first conductive film. The volumetric expansion according to the growth of the oxidized film from the second conductive film is larger than the volumetric expansion following the growth of the oxidized film from the first conductive film and, therefore, an overhanging state after the anodic oxidation is eliminated and the level difference formed by laminated wirings is relieved. Then, the disconnection of the upper layer wiring is prevented and the larger size, the higher fineness and the lower cost are realized.

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